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It looks as if we would have enough rubber for military needs, with new sources of supply being developed in the Western Hemisphere. But try to get a few more miles out of the tires on your old jalopy. New ones are hard to get.

A NEW SHOW WITH AN OLD PLOT

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When Old Man Economics writes a play, the acting tends to stick rather closely to the script. Not a line has been muffed in the show we have been watching for the last 2 years or so. However, we have firmly made up our minds to hang around until the final curtain to see how it all comes out. Post-war planning may change the last act.

MILK--NOT ONLY HOW MUCH BUT WHAT KIND?

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We are asking Bossy to give till it hurts--and she's doing her level best. Now it's up to us to see that the milk gets to market in the best possible shape. We are only kidding ourselves if we think that unclean milk is a Food for Freedom.

THE MONTH IN MARKETING

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Something is always going on in the field of marketing. Here are a few facts in a nutshell.

PARITY IN ONE LESSON

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If you have read your lesson over carefully, students, you won't have a whole lot of trouble with this subject. Now the class in parity will please pass to the blackboard.

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STRETCHING OUR RUBBER SUPPLY

By Thomas D. Mallery

Bureau of Plant Industry

When the Japs started their push southward in early December, they began driving a nail--a figurative nail, of course--into millions of American automobile tires. Practically all of the crude rubber consumed by industry in this country during recent years has come from the Malay Peninsula, Sumatra, Java, Borneo, and other possessions of the British and Dutch in the Far East. With these areas figuring more and more in the war communiques, the outlook for obtaining plentiful rubber supplies from this particular part of the world grows darker.

There is one grain of comfort to be gleaned from the present situation, however. About a year ago Japan's chronic saber rattling began to take on a more ominous note, and the Federal Loan Agency set about accumulating a "stock pile" of crude rubber. This reserve supply, large enough to meet the normal demands of industry for some time, can be stretched over a much longer period--perhaps for the duration--with strict rationing and the utilization of all available sources of supply.

Rationing has already started, as you will discover when you try to make a deal for a new set of tires, and utilization of all known practical sources is well under way. The output of natural rubber is being stimulated as rapidly as the characteristics of rubber-producing plants will permit, and production of synthetic rubber is progressing as fast as problems of factory construction and chemical techniques can be solved.

Progress Made in Central and South America

The Department of Agriculture and the Department of Commerce have recognized for many years the desirability of producing more natural rubber in the Western Hemisphere. Many species of plants have been analyzed for their rubber content and some research has been carried on under controlled conditions in the United States with tropical plants not accustomed to the climate of the North Temperate Zone. As early as 1923 extensive surveys were made of the potential rubber-growing areas of Central and South America, though few tangible results grew out of this work. The existing sources of rubber seemed secure.

But in July 1940, when our rubber supply was threatened, a more intensive survey was begun in close cooperation with 15 of the Latin-American countries. Within 60 days of the time the survey parties began their work, 100,000 rubber tree seedlings were growing in the first cooperative nursery in Central America. Since then a central experiment station has been established in Costa Rica, cooperative stations in Brazil, Honduras and Haiti, and large national nurseries in Mexico, Panama, Colombia, Guatemala, Peru, Ecuador, and Venezuela. Already many



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Old herringbone tapping scars on a wild Castilla elastica tree. Under the pressure of war conditions this tree will be an important source of rubber. While these trees do not produce latex so continuously nor of such good quality as the Para rubber tree, the latex that is produced can fill a number of vital needs. Contributions from this source will come chiefly from Mexico and Central America.



individuals and private companies have made experimental plantings of the Para rubber tree. These plantings may be rapidly expanded to plantation proportions as the land is cleared and the best types of planting material are made available. Under favorable conditions it will require from 5 to 7 years to bring these trees into production, but, even so, the development of the Para rubber tree appears to be our best bet.

The original home of this tree, known scientifically as Havea brasiliensis, is in a strip across South America extending 10 degrees north and south of the equator and lying principally in Brazil, Peru, Colombia, and Bolivia. While considerable quantities of rubber have been taken from the scattered wild trees in this area, the industry has been developed only slightly and nothing has been done to place it on a scientifically sound basis. Rubber production in the Amazon River Valley is a mere drop in the bucket compared with the total world supply, though consideration of the great quantities of rubber produced in other parts of the world from parent plant material transplanted from Brazil gives some idea of what may be accomplished in this hemisphere.

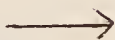
Plantation System Needed

The plantation system of producing rubber, as developed in the Far East, is the most economical. Contrasted with native rubber trees, which usually are found as few as two or three per acre, plantation trees are planted at the rate of 150 to 400 per acre. From this number 500 to 2,000 pounds of rubber may be harvested annually, year after year, depending upon the quality of the trees and the climatic conditions. The plantations need not be large, for over half of the world's rubber is produced on relatively small one-family farms. This is the type of plantation enterprise that is being encouraged in Latin-America.

To assure a continued supply in the meantime, and to "stretch" our reserves of rubber as far as possible, efforts are being made to bring thousands of native Para rubber trees into production--many for the first time. Recent survey reports indicate that rubber production in Brazil alone can be increased four to five times. Fortunately many of the best plantation practices can be put into operation in the utilization of wild rubber trees. Scientific methods of tapping will prolong the productivity of the trees indefinitely and modern methods of preparing the rubber for market will eliminate waste and insure a better product. Thus the expansion of the existing native rubber industry will, in the long run, aid the development of the extensive plantation rubber program recently initiated by the Department of Agriculture and our cooperating neighbors to the south.

Though research and experience have shown that we must look to the Para rubber tree as our principal source of rubber, it should be pointed out that thousands of plant species scattered over the major portion of the globe contain rubber. Chemically and physically rubber is the same, no matter what its source. However, more impurities accompany rubber obtained from some plant species than from others, and

Hevea (Para rubber tree) plantation at Lancetilla, Tela, Honduras. From 150 to 400 are ordinarily planted to the acre, and from this number can be obtained from 500 to 2,000 pounds of rubber annually. Plantations similar to the one shown here have proved to be the most efficient method of producing rubber on a commercial scale.



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Native rubber tapper (seringueiro) in the Upper Amazon Valley of Brazil. Until such time as plantations of selected Para rubber trees can be planted, the tapping of wild trees as shown here will be an important source of this vital material. Under supervision important improvements can be made in native tapping practices.



most plants yield rubber only once or for a very limited time before they must be replaced. Resins are one of the most common types of impurities occurring with rubber and their removal is usually difficult, time consuming, and expensive.

Thomas A. Edison did much pioneer work in the search for rubber producing plants, especially among the common wild flowers. He carried out extensive experiments with the well-known goldenrod, for example, and found that this plant contains a high percentage of rubber and grows abundantly over large areas, though it is impossible to extract the rubber in a pure condition by known methods. Limitations of this kind, and, in numerous cases, low yields, are characteristic of many native plants that are being brought to the attention of the Department of Agriculture these days. Most of the proposals come from well-meaning people who are anxious to help Uncle Sam with his war problems. And there is always a chance that some good and practical source of rubber has been overlooked, but that chance is mighty remote. Full cooperation in conserving proved sources of supply and in salvaging used rubber will do more in the way of stretching our rubber stocks than straw-grasping schemes based for the most part on wishful thinking.

Castilla and Guayule

The native plant population of the North American Continent has two representatives that have been developed to some extent in the past as complementary sources of rubber. They are the Central American rubber tree, Castilla elastica, and the silvery leaved shrub of Northern Mexico, Parthenium argentatum or guayule. Castilla belongs to the fig family, while guayule is a member of the sunflower or aster tribe. A reasonably pure grade of rubber can be obtained from each of these plants.

The Castilla tree is tapped only two or three times annually. After each tapping there is a continuous flow of latex--the rubber containing juice--but a long period must elapse before the latex is sufficiently renewed to repay tapping. The Hevea or Para rubber tree, on the other hand, responds to frequent tapping, the flow of latex continuing for two to three hours each tapping day. Since Castilla does not possess this type of wound response, it has not received as much attention as the Hevea. Under the impetus of war needs, however, the tapping of this type tree will be encouraged and its latex used whenever possible to supplement or replace Para rubber. In late years Castilla rubber has been used largely in the manufacture of rubberized cloth.

The guayule is native to certain semi-arid areas in the southwestern United States, as well as to Northern Mexico, and it grows well in the more southern Pacific Coast valleys. Although it is characteristically a desert shrub, it responds to cultivation without losing its rubber-yielding properties. The extensive natural areas of this shrub in Mexico have been harvested on a moderate scale since the beginning of the century, and much work has been done in this country by a private corporation on the cultivation of guayule and the selection of improved strains.

Guayule rubber has not been able to compete with Para rubber during normal times, chiefly because it is somewhat more expensive to produce. A Para rubber tree, once established, can be tapped over a long period of time, say 50 years or more. The guayule, on reaching maturity, is pulled up and mascerated in the process of extracting its one contribution of rubber. Para rubber contains only 3 to 5 percent of impurities when it leaves the plantation, whereas guayule rubber contains 15 to 20 percent of impurities when extracted from the plant. The impurities, largely resins, can be removed, but the process adds to production costs.

In view of the heavy demand, however, production costs will not be a factor limiting the fullest utilization of this normally uneconomical source of rubber. Guayule production will doubtless be an important contribution to winning the war, although about 4 years are required to bring a crop to maturity.

Artificial or synthetic rubber will also help in our enforced "rubber-stretching" activities. Here again the production costs are high, and in most of the manufacturing processes valuable natural resources, such as coal and petroleum, are basic requirements. There are a number of synthetic rubbers now being produced, some of which fill certain needs more successfully than do natural rubbers, but none of them will serve all of the purposes for which natural rubbers are used. Plants are being expanded for the production of significant quantities of the artificial rubber-like materials, and necessity may prove to be the mother of important improvements in their quality and quantity.

The rubber supply problem is probably not serious so far as war needs are concerned. How serious it is with respect to civilian requirements only time will tell. In this regard, a whole lot will depend on our willingness to conserve our allotment, and on our ability to develop new sources of supply.

Whatever degree of success we may have in getting supplies of rubber, much permanent good can grow out of current developments. It is part of the Good Neighbor Policy to help the other American Republics develop their natural resources. The result will be a better standard of living and a more favorable trade relationship for all of us. Guayule rubber production will provide a supplementary source of income during the war emergency in certain areas of our own Southwest. Synthetic rubbers, though costly, are needed badly for certain uses; and the present emergency will undoubtedly hasten their adoption by industry.

So let's not be discouraged. Through extra effort we can stretch our rubber supplies to keep 'em rolling and keep 'em flying.

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Plant introduction, one of the Department of Agriculture's most important activities, was started officially in 1863.

DAIRY PRODUCTS GOALS ARE ANNOUNCED;
DEPARTMENT WILL AID PLANT EXPANSION

The Department of Agriculture has estimated that 1942 production should be at least 3-1/2 million pounds of evaporated milk; 525 million pounds of dry skim milk for human consumption; and 900 million pounds of American cheese. This will represent increases over the estimated 1941 production of 20 percent for evaporated milk, 46 percent for dry skim milk, and 33 percent for American cheese.

In connection with plans for plant expansion to obtain these quantities, the Department has announced that it is prepared to extend assistance, in obtaining priorities and in financing, to cooperatives that wish to increase their facilities and that have been approved by the Agricultural Marketing Administrator. Assistance on a similar basis will be given privately-owned plants with respect to priorities and tax amortization.

"Our 1942 milk production goal of 125 billion pounds provides for an increase of 8 billion pounds over 1941 and 14 billion pounds over 1940," Secretary Wickard said. "This production can provide for increased use of milk and its products by our civilian population and armed forces, and also take care of the supplies of dairy products we have promised to send to Great Britain under the Lend-Lease Program. Processing facilities to turn out the needed quantities of certain dairy products must be made available, however, and the program that is being announced should make it possible to get them."

Since expanded purchase operations started in mid-March 1941, the Department has bought approximately 140 million pounds of cheese, 14-1/2 million cases of evaporated milk, and 33 million pounds of dry skim milk. Purchases are continuing at a substantial rate. The British alone have requested about 22 million cases of evaporated milk, 250 million pounds of American cheese, and 200 million pounds of dry skim milk.

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CERTIFIED SEED POTATO
CROP APPROACHES RECORD

Farmers have little to worry about regarding the supply of certified seed potatoes. A reported 1941 production of 17,524,723 bushels was second only to the record crop last year of 18,731,452 bushels and far above the 1930-39 average of 10,475,200 bushels.

The old standby, Cobbler, continued to lead all varieties, representing 25.9 percent of the 1941 certified seed potato crop. Triumph variety, with 21.7 percent, was second. Then came Green Mountain, 15.8; Katahdin, 12.0; White Rose, 4.7; Netted Gem, 4.0; Chippewa, 3.7; Russet Rural, 2.5; Early Ohio, 1.7; and all others, 8.0 percent.

DEPARTMENT RAISES SIGHTS ON 1942 SUGAR REQUIREMENTS

The Department of Agriculture announced recently that 6,666,890 short tons, raw value, will be needed from the various sugar-producing areas supplying the continental United States in 1942 in order to meet the normal sugar requirements of consumers. However, since certain of the areas may be unable in 1942 to deliver the quantity of sugar ordinarily furnished, it is necessary to establish initial quotas totaling 8,032,074 tons, in order to make it possible to obtain the required sugar from the other areas. The Sugar Act of 1937 requires the Secretary of Agriculture to establish quotas in December for the following calendar year and authorizes him to revise such quotas whenever necessary.

It is not anticipated that Hawaii or the Philippines will meet their entire quota. Therefore, any part of the required 6,666,890 tons that those areas are unable to supply will have to be made up by sugar from other areas having sugar supplies in excess of their quotas. Officials pointed out, however, that the Western Hemisphere may be called upon to furnish the Allies with somewhat larger supplies of sugar in 1942 than in other years.

On the basis of the recent sugar conservation order issued by the Office of Production Management, 1942 sugar distribution within this country will be limited to about 6,891,000 tons--the amount distributed in 1940--plus the supplies needed by the armed forces. The difference between this amount and the 6,666,890 tons could be made up from excess sugar stocks carried over into 1942.

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USDA ANNOUNCES FOOD STAMP LIST FOR JANUARY

The January "blue stamp" food list will be the same as the one in December, with the exception that raisins have been taken off. The list continues to make available to stamp program participants a wide variety of fresh fruits and vegetables, as well as pork, butter, eggs, and other important foods. The blue stamp foods are those obtainable nationally by families who take part in the stamp program.

The complete list of blue stamp foods, as issued by the Surplus Marketing Administration for the period January 1 through January 31 in all stamp plan program areas, is as follows: Butter, all cuts of pork (except that cooked or packed in metal or glass containers), fresh grapefruit, pears, apples, oranges, and fresh vegetables (including potatoes), corn meal, shell eggs, dried prunes, hominy (corn) grits, dry edible beans, wheat flour, enriched wheat flour, self-rising flour, enriched self-rising flour, and whole wheat (Graham) flour.

A NEW SHOW WITH AN OLD PLOT

By Gordon B. Nance

Missouri College of Agriculture

Many unkind things have been said about economists. Some have said that economists are like Woofus birds, those strange creatures that fly backwards to keep the wind out of their eyes and thus never know where they are going but always know where they have been. Another, having reference to disagreements, has said that if all economists were laid end to end, they would reach no conclusion. Still another, and this was the unkindest cut of all, has said that if all economists were laid end to end it would be a good thing.

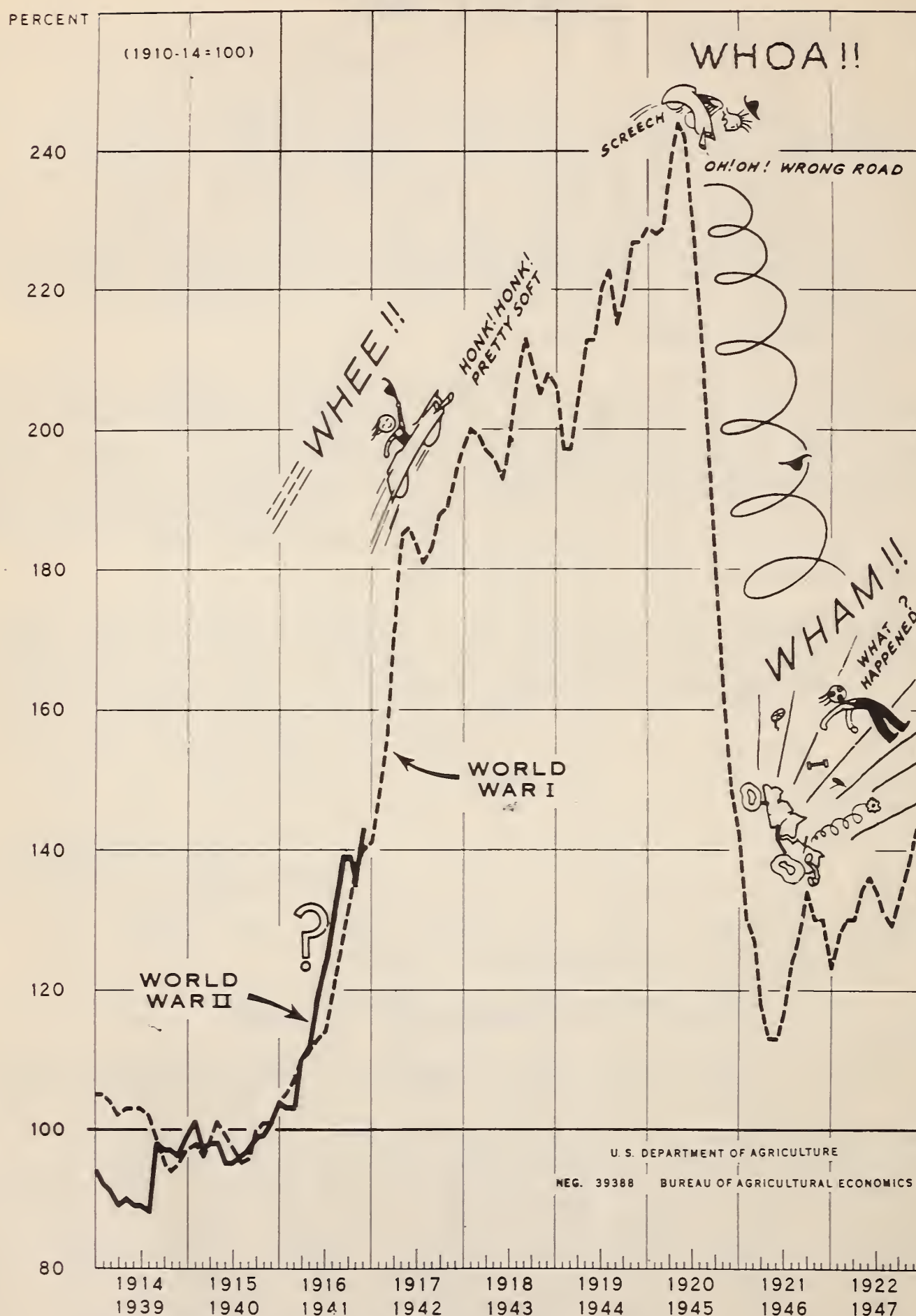
Nobody has accused us of having poor memories, however, and I still recollect the day I was graduated from college and started forth to make my way in the world---to conquer at least a smidgen of it. Prior to that time, economic conditions had meant little to me, because my dad had been the buffer between me and business changes. But since that time I have been on my own and have experienced the uncushioned shocks of economic forces. That way I have remembered them.

As I think back, it was a lusty, booming, wartime world I tackled in 1917. American mills and factories were operating on an unprecedented scale. Labor was scarce and high, and boys who had worked on my dad's farm for 75 cents a day were making 12 or 16 dollars a day in Detroit factories. Everyone had plenty of money with which to buy, but goods to be bought were scarce. The automobile I ordered did not come for 5 months. Wholesale prices had risen 24 percent from the year before and were to rise another 40 percent that year. Prices of farm products had risen 25 percent the previous year and were to rise 60 percent more that year. Such investments as we had paid good dividends and increased in value. I blush to tell, but before 1920, I had already calculated just when I would have enough money to retire.

Sees Parallel Between 1917 and 1942

Now, 24 years later, we are again in a lusty, booming, wartime world. American mills and factories are again operating on a scale never before known--50 percent above even that of 1929, the year we used to talk about. Labor is again scarce, and some men who have recently lived on relief or charity are getting 12 to 16 dollars a day. Everyone again has plenty of money with which to buy, but merchants are having difficulty in replenishing their stocks. Wholesale prices again have advanced 17 percent. Prices of farm products have risen nearly 50 percent and are still rising. Investments are paying double what they did a few years ago. If such repetition occurred at the movies, I would reach for my coat and hat and say to myself; "This is where I came in."

PRICES RECEIVED BY FARMERS WORLD WARS I AND II



Prices received by farmers since September 1939, the outbreak of World War II, have traveled a road that looks very much like the one they toured over during World War I. The trend of the solid black line would be altered by price control, however.

But we can't walk out on this economic show. There is no "out." Besides, it is not exactly the same show--even if it is the same plot. It is something like "Dr. Jekyll and Mr. Hyde," which I saw for the third time not so long ago. If I remember correctly, John Barrymore played Dr. Jekyll the first time, Frederick March the second, and Spencer Tracy the last. Each of these leading men, in their performances, gave a different interpretation of Robert Louis Stevenson's play.

The world show that opened in 1939 has a different cast of characters from that of 1913. Then it had Kaiser Wilhelm, King Victor Emanuel, Emperor Yoshihito, Clemenceau, David Lloyd George, and Woodrow Wilson. Now it has Hitler, Mussolini, Emperor Hirohito, Petain, Churchill, and Roosevelt. Each of the old actors gave his own interpretation to his separate role, so this show will be somewhat different--remember Pearl Harbor? But Old Man Economics, who wrote the play, laid down laws of acting thousands of years ago that will not permit too much liberty to be taken with the script. The way prices of farm products have behaved then and now proves this point conclusively for most of us.

Prices of farm commodities rose from the beginning of the last war until 2 years after its close, more than doubling in that period. The next year they dropped about a third, and maintained that level for about 10 years. We adjusted ourselves to that level of prices, and set ourselves to the task of feeding and rebuilding the world. It was in that period, you'll recall, that we proudly announced that we had discovered the panacea for economic ills, the alchemy of prosperity that would banish poverty from the land, put two cars in every garage and two chickens in every pot. And 3 short years after this grandiose pronouncement, we were in the depths of the worst depression the world has ever known. Not only had we not banished poverty, but breadlines were twice as long as ever before in our history. Not only did we not have two cars in every garage, we had lost the garage. Not only did we not have two chickens in every pot--we didn't even have a pot. From that low point in 1932, prices again started a slow upward climb. They are still climbing, but they are climbing faster now--just as they did in 1916. (See chart.)

Recalls Joseph and Pharaoh

It is only once in a blue moon that I make Scriptural allusions in an economic discussion, but I feel the urge now. I seem to recall, vaguely, that when I was in Sunday School years ago, somebody told me of a dream that Pharaoh had--a dream that was interpreted by Joseph.

As I remember it, Pharaoh dreamed that Behold, he stood by the brink of a river, and up out of the river came seven good cattle, fat-fleshed and well-favored. The Bible does not state the grade of these cattle, but I've always thought that at least four of them were Prime and the other three no worse than Choice. Then he saw seven lean cattle come up out of the river after them and these were thin and ill-favored. We are not left in any doubt as to the grade of these--they were Canners, for Pharaoh said that not in all Egypt had he seen their equal for

badness. Pharaoh saw these lean cattle eat up the fat cattle, but gain no weight in the process. They were just as lean after the eating as before.

Then Pharaoh dreamed again and saw seven ears of corn come up on one stalk--full and good. In my mind's eye I can see those ears--filled out to the very tips of the cob, hanging down and making the kind of picture a hybrid seed corn salesman would like to have on his advertisement. And then seven thin ears, withered and blasted by the east wind sprung up after them. I know just how those poor ears looked, too,--I drove through Missouri in 1934 and 1936. And the thin ears swallowed up the good ears.

Joseph interpreted this dream to mean that there would come 7 years of exceeding great plenty, to be followed by 7 years of grievous famine. Joseph suggested that preparation be made in the good years for the bad years that are to follow. His suggestion was put into effect, and in the bad years there was famine in all the lands--except Egypt. They got by in Egypt because of their foresight.

Interprets Last Night's Dream

If you had a similar dream last night, I can interpret it for you. It means that we will have a series of good years, the production in which will be far beyond any we have ever known. How many of these there will be I do not know, but it is much more likely to be fewer than 7 than more. These will be followed by a series of bad years. How many of these there are to be I do not know, but they are much more likely to be more than 7 than less.

Just when these bad years will start I do not know. The upward trend in employment, production, income, and prices is expected to continue at least through 1942; and it could easily continue several years longer, depending upon the international and domestic developments. But a sharp reversal of this trend is inevitable upon the cessation of war, the defense program, and other Government spending. It should be constantly borne in mind, too, that in no instance have prices failed to decline within seven percent of the pre-war level within the 16 years following the cessation of former major wars.

Plan of Action Considered

Forewarned is forearmed, so, in my opinion, it might be well to consider the following plan of action:

1. Increasing the production of those products that are likely to continue relatively high in price. Included on the list are the Foods for Freedom.

2. Increasing production for farm and family needs.

3. Purchasing now those things that must be bought within the next 2 years. (These things really should have been bought a year ago.)
4. Avoiding purchases at high prices of what will not be paid for during the period of high prices.
5. Refinancing now, on long-time terms, any debts that may not be paid off during the period of high prices.
6. Making every business decision with a view toward attaining the best possible position to endure the aftermath of war. The last post-war period wrecked the lives, shattered the morale, and extinguished the hopes of more people than did the entire war that was responsible for it.

So with all the seriousness I can summon, and in plain untechnical every-day language that nobody can fail to understand, let me tell you this: Those of us who do not take advantage of the opportunities afforded by these few good years we are now experiencing to put ourselves in a position to withstand the many more lean years that I am sure are to come, will, when the lean years do come, find ourselves in one heck of a fix.

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LAMB-FEEDING OPERATIONS MAY REACH RECORD PROPORTIONS

The number of sheep and lambs fed during the 1941-42 feeding season will probably exceed the record number fed during the 1940-41 season. Developments in November pointed to larger feeding operations this year than seemed probable a month earlier.

In the Corn Belt, Nebraska, Kansas, Missouri, and South Dakota are expected to show increases that more than offset decreases in all of the other States. In the 11 Western States a material increase in feeding operations in Colorado and some increases in Utah and Montana are expected to total more than the moderate decreases in most of the other States. More lambs will probably be fed in Texas and North Dakota than last year but fewer will be fed in Oklahoma.

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During the holidays in 1713, the Governor of Connecticut and the King's Commissioners were just preparing to dine when it was discovered that the bear prepared for the occasion had been shot on "ye Lord's Day." At that dismal news none would touch a morsel of the roast bear until the Indian who shot the animal was whipped and made to restore the price paid for the meat. Having inflicted a "just and righteous sentence on ye sinful heathen" the company then fell upon the roast with clear conscience and left nothing but the bones. --Weekly Digest.

VICTORY GARDEN PROGRAM RECOMMENDED BY CONFERENCE

Recommendations for a "National Victory Garden Program" were presented recently to the National Defense Garden Conference, called jointly by Secretary Claude R. Wickard and Federal Security Administrator Paul V. McNutt.

Specific recommendations were presented by separate committees on farm vegetable gardens, farm fruit gardens, conservation and preservation of fruits and vegetables, community and school gardens, and conservation of lawns, flowers, and shrubs. All committees recognized the Food-for-Freedom Program of the Department of Agriculture will insure plenty of fruit and vegetables for everybody, and that there is no need for any food hysteria.

The committee on farm vegetable gardens asked that efforts be made in each State to set up standards for an adequate victory garden, and recommendations as to varieties and kinds of vegetables that would best meet nutritional defense needs. It was recommended that horticulturalists, home economists, seedsmen, and representatives of the land-grant colleges and the Department of Agriculture meet in each State to formulate specific plans for the garden program in the State.

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FEDERAL STATUTE MAKES BROKERS LIABLE FOR MISLEADING STATEMENTS

Brokers are violating the Perishable Agricultural Commodities Act when their wires to sellers falsely indicate that they have consummated a sale of produce. The Department of Agriculture says brokers sometimes wire shippers that a carload of produce has been sold without advising that the buyer only offered to purchase subject to inspection and acceptance on arrival. Other times sellers discover after the shipment arrives that no price has been agreed upon, the deal being nothing more than a "price arrival" sale.

With regard to such cases, the Department has taken the position that "statements by the broker indicating that a sale has been made, when, in fact, no enforceable contract has been entered into, will subject the broker to a complaint alleging false and misleading statements in violation of the act."

Thus it is important that the same terms and specifications be agreed upon by both buyer and seller, and that the broker issue a confirmation or memorandum, in writing, that clearly sets forth all the essential specifications of the contract of sale. This confirmation in writing should be made immediately. In case of rejection the broker may find himself liable for losses, if such confirmation has not been made.

MILK--NOT ONLY HOW MUCH BUT WHAT KIND?

By Ernest Kelly
Bureau of Dairy Industry

The 1942 Food-for-Freedom Program calls for a total production of 125 billion pounds of milk--far more than our herds ever produced before. As a matter of fact, if all of this milk were packed in gallon cans a foot high, and if each can were stacked one on top of the other, the stack would reach to a height of 2,753,000 miles. It is easier to visualize the 1942 output, however, by considering that the milk produced this year will furnish enough for the United States, and still leave plenty to be turned into products for the anti-Axis nations.

There is only one catch to this story. The 1942 goal doesn't depend entirely on how much milk is produced. What kind of milk is marketed has a vital bearing on the ultimate effectiveness of the program. This is borne out by recent figures of the Agricultural Marketing Service which indicate that roughly 15 percent of the cheese offered for sale to the Government under the Lend-Lease Program has been rejected because it was not of the desired quality. The unsatisfactory quality of the milk that went into the cheese was a principal factor leading to eventual rejection of the manufactured product.

Farmers Can Cooperate

Obviously, we can't waste food during the present emergency. Many farmers who have been delivering sour cream for butter making must now learn to produce and market fresh, sweet, wholesome milk of unquestionable purity. Cream for butter making can be held for several days, or even longer in cold weather, and be delivered after it has been soured or ripened. But the whole milk for cheese and evaporated milk must be delivered daily while fresh and sweet.

As a result of the Government's call for more milk and the resultant favorable prices, a sizeable number of farmers are selling milk for the first time. They, in particular, need to give attention to the quality of their product if it is to be useful in the Food-for-Freedom Program.

It is apparent, however, that not all of the blame for the poor-quality dairy products that have been uncovered can be laid on the farmer's doorstep. The milk and cream buyer must also accept the responsibility, especially in the present emergency, for carefully inspecting and grading each patron's delivery. Accepting inferior quality milk or cream without making some constructive effort to correct the condition at the source only contributes to the patron's continued negligence, to the country's loss of valuable food, and to smaller returns to producers--in some cases even to producers of high quality milk.

War calls for maximum efficiency in production and marketing of such important foods as dairy products, and losses through contamination

and confiscation must be held to a minimum. Milk producers and buyers must adopt a program of haste without waste. It has always paid farmers in cold cash to produce clean, wholesome milk, but during the emergency our national need for good milk transcends even the individual economic advantage to the farmer.

Foresighted dairy farmers, of course, will take advantage of the present favorable price situation to make improvements in their barns, milk houses, and equipment in order to produce the quality of milk or cream demanded by buyers. But equipment is not all that is needed. Since milk is easily contaminated during the process of milking and handling, the producer must ever be on the alert.

How Do You Handle Your Milk?

Here are some sanitary precautions that make for clean, high-quality milk:

Healthy cows. Diseased cows do not produce desirable milk. All dairy animals should be tested regularly by a capable veterinarian and the diseased animals removed from the herd. Precautions should be taken to keep the herd healthy at all times.

Clean cows. Much of the dirt in milk, which makes for high bacterial count, comes from the body of the cow. Small-mouthed milk pails help to prevent dirt from dropping into the milk, but the cow must also be clean at milking time. Long hairs should be clipped from the udder, flanks, and tail to prevent the accumulation of dirt. If these parts are dirty, they should be wiped with a clean, damp cloth. If extremely dirty, they should be carefully washed. Plenty of bedding, good stables, and frequent removal of manure will help keep the cows clean.

Clean utensils. Utensils that have not been thoroughly washed and subjected to heat or to treatment with a chlorine solution are a major source of bacteria in milk. After being rinsed in cold or lukewarm water, the utensils should be thoroughly washed with hot water, an alkali washing powder, and a stiff brush. Rags, greasy soaps, or soap powders should not be used. After being washed, the utensils should be rinsed in clean water and subjected to heat or chlorine treatment.

All milk utensils should be durable, smooth, and nonabsorbent. Wooden utensils foster bacteria and should not be used, nor should utensils that are rusty or battered, nor those that have crevices that make them hard to clean.

Clean milk handlers. Milkers should wear clean overalls for each milking, and they should wash their hands with soap and water before milking. Only healthy persons should be allowed to work on a dairy farm.

Cooling. Improper cooling is largely responsible for bacterial growth in milk. Bacteria develop rapidly in milk that is kept at too high a temperature during storage. Dairy farmers should cool their milk by one of three methods: Water, ice (natural or artificial), or mechanical refrigeration. Warm, fresh milk should not be mixed with cold milk of a previous milking since this hastens the growth of bacteria by warming the mass of milk.

Milk house. The building in which the milk is handled should be convenient to the barn, but so located as to be free from dust and stable odors. The ideal place is in a well-drained location somewhat higher than the barn.

These sanitary precautions will prevent losses due to spoilage. They also help to improve the flavor of the milk. To obtain milk of good flavor, however, the farmer should feed all highly flavored feeds, such as silage, immediately after milking the cows, not just before.

The farmer should always bear in mind that we have a war on our hands--a long war. And milk, good milk, can be just as important as bullets in gaining a victory. Let's make 1942 a "good-milk" year.

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RECORD PIG CROP ENABLES FARMERS TO MEET FOOD-FOR-FREEDOM GOAL

American farmers will exceed the 1942 Food-for-Freedom hog production goals, thereby virtually assuring ample pork and pork products next year for the United States, Great Britain, and other nations resisting aggression.

The December Pig Crop Report shows that production in 1942 may reach 97 million head--larger by 10 million than any other pig crop on record. After allowing for normal death losses, a pig crop of this size would permit farmers to exceed by 5 percent their 1942 marketing goals of a little over 79 million head.

"I am pleased," Secretary Wickard said, "with the splendid response of hog producers to the Nation's call for more pork and pork products to feed our armed forces, our civilians, and our Allies. We are glad they have set their sights even higher than the goals, as we would far rather have a little extra than not enough in this battle against the Axis powers."

--V--

Agricultural commodities bought by the Surplus Marketing Administration during the period from March 15 through November 30 cost more than \$500,000,000, not including handling and transportation charges.

THE MONTH IN MARKETING

By Phil Perdue

SUPPLIES. A short story of 1941 production of field crops: 338 million harvested acres and record yields per acre. Though the harvested acreage was 7 percent under 1932's record (less corn and cotton) the performance per acre resulted in near-record production.

Production: Combined crops of corn, oats, barley and grain sorghums--7 percent over last year, largest since 1932; hay and forage crops--biggest in history; fruit--probably largest ever; wheat--largest crop since 1919; vegetable output--7 percent over any previous year.

Farm output of milk and eggs on December 1 was at the highest rate in years, and commercial hatcheries set new records. Production and market supply of hogs in 1942 should shame all records. The '41 fall pig crop for '42 marketing tops last year's fall crop by 18 percent and is the largest on record, as is the number of "expectant" sows due for 1942 spring farrowing.

Evaporated milk output January thru November was 24 percent over same period 1940; condensed milk jumped 66 percent; and cheese 16 percent. Dry skim milk production for human needs was up.

PRICES. Farmers received better prices in the month ending December 15, but they also were paying more both for consumption and production commodities. After November's 4-point decline, the general level of prices received by farmers rose 8 points; net gain--4 points. Combined index of prices paid by farmers, including interest and taxes payable per acre, rose 1 point. Prices of all products combined averaged 99 percent of parity.

FARM EMPLOYMENT. Farm employment December 1 was greater than a year earlier. November had the smallest seasonal decline of record. attributed largely to prolonged harvest season. Wages were up. The trend: Shift of family workers from "unpaid" to "paid" status.

LEND-LEASE. Surplus Marketing Administration bought \$73,000,000 worth of farm products in November, mostly for lend-lease. March 15-November 30 buying totaled a billion dollars. High among purchases were dairy, poultry, pork--"musts" for wartime needs.

1942 GOALS. Secretary Wickard on December 19 called for a record supply of canned vegetables for wartime needs, about 15 percent over the 1941 pack of canned tomatoes, peas, snap beans, and corn. This, said Mr. Wickard, will be sufficient for military, school-lunch, and lend-lease needs, and a normal carry-over. Growers and canners are to receive assistance in meeting the goals.

Milk production goal for '42 is 125 billion pounds, 8 billion over '41. Plans were announced to help plants meet 1942 goals for cheese--900 million pounds (33 percent over 1941); evaporated milk--3½ billion pounds (up 20 percent); and dry skim milk for human consumption--525 million pounds (up 46 percent).

PARITY IN ONE LESSON

By Ken Jenkins

Not so many years ago everybody was talking about relativity. Feature writers "went to town" on the new theory, and a social gathering was considered lowbrow if it didn't include at least one person able to talk at length on the "time-space concept" or the "four-dimensional continuum." Then a real authority on the subject spoiled it all by stating definitely that only six or seven men in the whole world clearly understood what relativity was all about.

Today we are hearing a lot about parity. Yet Wallace's Farmer has found that a large number of rural people, though they talk about parity, have no really clear concept of the theory. The terminology--"indexes," "base periods," and "ratios"--evidently has obscured something that is fairly simple.

To clear up this matter let's consider the case of John Smith, who owns a little farm out in the Middle West. Let's suppose that during the 60 months from August 1909 to July 1914 Smith could take the entire output of his farm for one year, sell it, and with the money received buy an automobile, a piano, a woolen suit, a coat for the wife, and a horse collar for Dobbin. This ratio of exchange was eminently satisfactory to all concerned, so we shall use the 1909-14 period--the base period--as our measuring stick. The prices Smith received for his products during the base period we shall call "parity prices."

Smith Does Well in 1917

Now let's use our measuring stick on the situation during another year to see how Smith fared. Let's suppose that in 1917 he could sell the crops raised on his farm--the same kinds and quantities as in 1909-14--and buy an automobile, a piano, a woolen suit, a coat for the wife, a horse collar for Nellie (Dobbin died), a riding cultivator, a new windmill, a silo, and a rug for the living room. Prices were high in 1917, a war year, and Smith could buy more for the money obtained from his products than he could during the 1909-14 period. So we shall say that the prices he received in 1917 were "above parity."

Moving on to 1932, at the very depth of the depression, let's suppose that Smith could sell his crops--still the same quantities and kinds as in 1909-14--and buy only one automobile and nothing more. Since Smith couldn't buy as many manufactured products for his money in 1932 as he could during the 1909-14 period, we shall say that the prices he received that year were "below parity." And how!

That's really about all there is to parity. If farm products can be exchanged for as many goods--primarily manufactured or processed items--as during the 1909-14 base period, the prices at which those products are sold are "at parity." If farm products can't be exchanged

for as many manufactured products as during the base period, prices are "below parity." If farm products can be exchanged for more manufactured products than during the base period, prices are "above parity."

The official definition of parity, the definition that applies to most crops, is as follows: "The parity price for any agricultural commodity is that price for the commodity which will give to the commodity a purchasing power with respect to articles that farmers buy equivalent to the purchasing power of such commodity in the base period; and, in the case of all commodities for which the base period is the period August 1909 to July 1914, which will also reflect current interest payments per acre on farm indebtedness secured by real estate, tax payments per acre of farm real estate, and freight rates, as contrasted with such interest payments, tax payments, and freight rates during the base period." You will note that our John Smith story, for the sake of simplicity, left out all reference to interest and taxes.

How to Compute Parity Prices

Now, assuming that you have a clear idea of the broad principle of parity, let's see how parity prices are computed. All that is involved is arithmetic, and not much of that. For example, if we want to find the parity price of wheat in November 1941, we take the local market price of wheat during the 1909-14 base period--88.4 cents per bushel. Then we multiply that figure by the November 1941 index of prices paid, interest, and taxes--143. Our product is 12,641.2 cents, which, when divided by 100 becomes 126.4 cents or \$1.26 per bushel, the parity price of wheat. The index of prices paid, interest, and taxes may vary from month to month, and frequently does, so you will always need that figure to compute the current parity price. The index number is published by the Department of Agriculture in its Midmonth Local Market Price Report.

Suppose you want to find what percentage the actual price of wheat is of the parity price. This, too, is a matter of arithmetic. For example, the local market price of wheat in November 1941 was 93.4 cents; the parity price was 126.4 cents. If we divide 93.4 by 126.4 we get 0.74, which, when multiplied by 100 becomes 74 percent (of parity). It might be pointed out that the actual prices of a given commodity do not necessarily move in the same direction as parity prices. The index of prices paid, interest, and taxes may be rising, which means a rise in the parity price. But the actual price, due to supply and demand influences, may be declining at the same time.

You may have other questions about parity, such as why the period from August 1909 to July 1914 is used as a measuring stick. In a recent article in the Agricultural Situation, Dr. O. C. Stine, Bureau of Agricultural Economics, explains this point.

Stine says: "Since sharply rising or falling prices are likely to result in abnormal relationships, it is reasonable to select a period when

the general level of prices was not changing very rapidly and before the abnormal conditions of the first World War began to affect those price relationships. The period 1909-14 was therefore selected as the base period. This period was at the end of the recovery from the depression of the 1900's, and was a period of relatively stable prices."

Other Base Periods Used for Some Products

The 1909-14 base period is not used for computing the parity prices of some products, however. As Dr. Stine points out, "A pre-war (1909-14) base cannot or should not be used for some commodities because these commodities were not produced and marketed in significant quantities in that period, or the conditions of production and marketing are so changed now that the 1909-14 period cannot be looked upon as a normal base period for them. Moreover, many of these commodities have been grown commercially in large quantities and marketed through many months of the year only since the first World War."

The Agricultural Adjustment Act of 1938 provides a post-war base period, August 1919 to July 1929, for potatoes and for all types of tobacco except Burley and flue-cured. August 1934-July 1939 is the base period for these two types.

Parity has a number of applications, of course. There are parity payments, prices supported at 85 percent of parity, and proposals to fix some prices at 110 percent of parity. The lesson just outlined, however, covers the main points. So from now on, when parity is mentioned, you can step right up and say, "It works this way: If John Smith could sell....., etc."

--V--

NEW METHOD AIDS

SHIPMENT OF MEAT

The first shipment of "self-refrigerated" meats from the United States to Britain, in ordinary ship space instead of customary refrigerated chambers, reached its destination in good condition after many days at sea. According to the meat trade, it marks an important development in shipment of foods to overseas markets, especially in view of present shortages of refrigerated vessels.

In preparing the meat for shipment by the new method, it was boxed, frozen to a very low temperature, and placed in the ship's hold. Instead of the usual insulation, the American Meat Institute reports, the ship bottom and sides were insulated with lard that had also been boxed and frozen, the hold then being sealed by placing on top of the boxed meat more boxed frozen lard.

No refrigerating machinery was used on the ship.

GOALS ESTABLISHED FOR RECORD PACK OF CANNING VEGETABLES

The greatest supply of canned vegetables in the history of the country is to be produced to meet wartime needs under a program for 1942 announced recently by the Department of Agriculture.

Final goals, established after intensive study of needs, provide for 1942 packs of 40 million cases of canned tomatoes; 38 million cases of canned peas; 12-1/2 million cases of canned snap beans; and 24 million cases of canned corn.

The 1942 pack goals for these four leading canned vegetables combined exceed by approximately 15 percent the record 1941 pack of these products. The goal of 40 million cases for canned tomatoes is about one-quarter higher than the 1941 pack. For canned peas, the pack goal is about one-third larger than that of 1941. The goal for canned snap beans is about the same as the 1941 pack, while for canned corn the goal is about 2 million cases less than the record-breaking pack of 1941.

--V--

COLD STORAGE SPACE CHECKED FOR DEFENSE

Refrigerated warehouses in the United States, on the basis of a virtually complete survey, have a total gross space of 766 million cubic feet in which to conserve the perishable foods needed by a Nation at war. The survey of cold storage warehouses and meat-packing plants was made by the Agricultural Marketing Service at the request of the Office for Emergency Management, and is one of several being conducted by the Service at the request of defense agencies.

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The most important development in the cattle feeding situation during November was the increased movement of stocker and feeder cattle into the Corn Belt States. This increase in November shipments, however, offsets only a small part of the decrease during the preceding 4 months, and present indications continue to point to a considerable reduction in winter cattle feeding in the Corn Belt. Reports from States outside of the Corn Belt indicate that there will also be some decrease from last winter in the total number fed.

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There are more than 25 million dairy cows in the United States. If the cows were driven one behind the other through a gate at the rate of four miles per hour, it would require 33 years to get this vast dairy herd through the gate.--Kansas State College.

OUR AUTHORS LAST YEAR

Whatever we may think of 1941, and we have a few mental reservations in the international field, we have no crow to pick with our contributing authors. They came through every time with the kind of stories we liked, and the kind we hope you liked too. We will be hounding them for articles again this year.

Just to refresh your memory, here they are:

January: The Mother of Over 800 Million Chicks, by Robert F. Moore; Fruit Takes a Much Larger Place in the Nation's Diet, by Creighton N. Guelow; The Why and How of the Egg Grading Service in Michigan, by Miles A. Nelson.

February: Armor-plated Milk, by John L. Wilson; Safe-Deposit Boxes for Farm Products, by S. T. Warrington; The Honey Situation during the World War Period and Now, by Harold J. Clay.

March: The Goober Sets a Record, by E. M. Brooks; The Farmer and Public Interest in Large Crops, by Louis H. Bean; Taking the Guesswork out of Lamb Marketing, by L. B. Burk.

April: Wheat and the Marketing Quotas, by R. M. Evans; A proposal to Eliminate the Marketing Paradox, by A. R. Sabin; What Is Ahead in Reporting Egg Prices? by L. M. Davis; "Here Are Today's Markets", by E. J. Rowell.

May: The Egg-Drying Plants Size Up Humpty Dumpty, by H. L. Shraeder; Hay Takes a Place among the Leaders, by E. O. Pollock; Marketing and National Defense Problems Studied by Federal and State Officials, by J. R. Cavanagh; Maple Sirup Time in Maryland, by C. E. Burkhead.

June: Combing the World for Plants, by Harry Henderson; Canned Sunshine, by F. C. Jones; The Morgan Case, by Howard D. Dozier; The Country Fruit and Vegetable Auction, by Neptune Fogelberg.

July: Labor Supply and Farm Production, by Roger F. Hale; Delaware Goes in for Broilers, by C. E. Burkhead; Cheese--A New Weapon for Defense, by Dale Bormuth.

August: Potatoes Come to the Texas Panhandle, by W. D. Blachley; How Efficient Is Our Marketing System? by A. C. Hoffman and F. V. Waugh; Grandma Never Wore Stockings Like These, by Ruth Van Deman; The Army Goes Shopping for Fruits and Vegetables, by J. R. Cavanagh; Jewish Chicken Dinners Are Kosher, by C. E. Burkhead.

September: Bill Jones Sells Some Leaf, by E. D. Booker; It Looks Like a Big Year for the Tomato-Canning Industry, by T.R. Hall; Rationing Bossy, by John L. Wilson; Better Packages for Better Products, by J. R. Sanborn; Smith-Doxey Classing--A Major Project, by W. B. Lanham.

October: The Balance of the Beam, by Frank W. Miller; --With All the Trimmings, by E. Smith Kimball; Maryland Harvests Its Wormseed Crop, by C. E. Burkhead; The Little Brother of the Potato Industry, by A. Clinton Cook.

November: A Program for Prices, by Claude R. Wickard; To Correct a Misunderstanding, by C. C. Warren and S. A. Jones; Don't Spare the Mustard, by Jay Diamond; Regulating the Merchants of Death, by Phil Perdue; Protection at the Stockyards, by F. W. Miller.

December: Let's Look at Price Ceilings, by John B. Shephard; Run, Sheep, Run, by C. L. Harlan; Have Some Popcorn, by Joe Ewing; When Unfair Becomes Illegal, by Frank W. Miller.

Perhaps you weren't on our mailing list for all of the 1941 issues, or Rover, in a spirit of pure fun, may have carried a few of them over to the vacant lot across the street. Either possibility is bad.

We are getting around to telling you that we have some extra copies of these back issues, which we shall be glad to furnish upon request. First come, first served.

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EVAPORATED MILK OUTPUT SHOWS CONTINUED EXPANSION

The margin of increase in the production of evaporated milk (case goods) over the corresponding months of 1940 and the 1935-39 average continues to expand. Estimated at 258,203,000 pounds, the November output was 92 percent larger than in the same month of last year and 142 percent larger than the 5-year November average. October increases were 56 and 97 percent, respectively. Even more significant, the November production --usually the low point for the season--was only 26 percent smaller than the 1941 peak, compared with a drop of 54 percent between the high and low point of last year, and 60 percent for the 5-year average.

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GOOD OUTLOOK FOR FARMERS IN 1942 UNAFFECTED BY SPREAD OF THE WAR

The spread of the war to the Western Hemisphere has not materially affected the favorable economic outlook for agriculture in 1942, the Bureau of Agricultural Economics said recently, on the basis of "a continuation of the favorable trend in conditions affecting the domestic demand for farm products."

"Speculative and storage demand may be stimulated for products unaffected by price ceilings, Food-for-Freedom buying will be expanded, and the total income of consumers is expected to increase," the Bureau said.

-PERTAINING TO MARKETING-

The following reports and publications, issued recently, may be obtained upon request from the Agricultural Marketing Service:

Refrigerated Warehouse Space Survey, as of June 16, 1941, with comparisons

Cotton Fiber Testing Service

Prosecutions and Seizures Under the Interstate Clause of the Federal Seed Act

Rules and Regulations of the Secretary of Agriculture Applicable to the Grade Labeling and Packaging of Butter and Eggs

Marketing Colorado Onions, by Bryce Morris

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Bartlett, R. W. The Price of Milk. Interstate Printers and Publishers, Danville, Ill.

In his book, "The Price of Milk," Dr. Bartlett sets forth clearly in abbreviated form some of the outstanding problems of the fluid milk industry and his views as to their solution. Milk pricing systems based upon costs of production formulas and upon uncontrolled collective bargaining on a market-wide basis are classified as unsuccessful and the author sees little to be gained by treating the industry as a public utility. Although rigid Government control of prices is opposed, the need for some Government regulation is recognized as helpful for maintaining fair and efficient operation. A flexible plan under which the price of milk for fluid use is related by formula to prices of manufactured dairy products with suitable spreads and differentials is expounded as "a price system that works."

The author recognizes increased consumption as a basic need of the fluid milk industry. He suggests "low price to consumers demanding little service or buying milk in quantity, and higher prices for those demanding more service." The elements of monopoly, coercion, and unfair practices are discussed with particular reference to the Chicago market. And some pertinent suggestions on quality standards and economic means of obtaining them are also included.

This discussion is so concise and direct that it should appeal to a wide group of people little schooled in dairy economics. It should also offer real food for thought to those who are closely associated with the operations of the industry itself. Dr. Bartlett is to be congratulated.

--Dr. John L. Wilson, Agricultural Marketing Service.

